

WHAT IS CLAIMED IS:

1. A radiation image sensing apparatus
comprising:

an image sensing unit which is capable of
5 non-destructive reading, adapted to sense an object
image by allowing radiation from a radiation source to
pass through an object; and

a control circuit adapted to perform control to
stop emission of radiation from the radiation source on
10 the basis of a signal obtained from said image sensing
unit by non-destructive reading in the image sensing
operation.

2. An apparatus according to claim 1, further
15 comprising a switching circuit adapted to switch
reading modes of said image sensing unit, said
switching circuit switching the reading mode of said
image sensing unit to a non-destructive reading mode in
the image sensing operation.

3. An apparatus according to claim 1, wherein
said image sensing unit includes a pixel portion
including a photoelectric conversion element and a
reading transistor, the photoelectric conversion
20 element of the pixel portion being connected to a
control terminal of the reading transistor.

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4. An apparatus according to claim 3, wherein a load is connected to one main electrode terminal of the reading transistor, and the transistor is formed by an amplifier having a voltage amplification factor of substantially 1.

5. An apparatus according to claim 4, wherein the load is a constant current source or a resistor.

6. An apparatus according to claim 3, wherein a switching transistor adapted to select a pixel portion in a row direction is connected in series with the reading transistor.

7. An apparatus according to claim 3, wherein a reset transistor is connected in series with the photoelectric conversion element, and the reset transistor is controlled in accordance with a mode switching signal to switch the reading mode to a normal reading mode or a non-destructive reading mode.

8. An apparatus according to claim 1, wherein said control circuit comprises a pattern recognizing circuit adapted to perform pattern recognition on the basis of an output from said image sensing unit, a detection circuit adapted to detect a radiation amount on the basis of the pattern recognition result obtained

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by the pattern recognizing circuit, and a generation circuit adapted to generate a reference value for a most appropriate radiation amount on the basis of the pattern recognition result obtained by the pattern
5 recognizing circuit.

9. An apparatus according to claim 8, wherein said reference value is generated for a most appropriate radiation amount on the basis of the
10 pattern recognition result obtained by the pattern recognizing circuit.

10. An apparatus according to claim 8, wherein said control circuit detects a radiation amount by
15 using the detection circuit while performing non-destructive reading from said image sensing unit in the image sensing operation, and stops emission of radiation from the radiation source when the radiation amount becomes not less than the reference value.

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11. An apparatus according to claim 8, wherein said control circuit detects a most appropriate image sensing time while performing non-destructive reading from said image sensing unit in the image sensing
25 operation, and stops emission of radiation from the radiation source when the image sensing time reaches the most appropriate image sensing time.

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signal obtained from said image sensing unit by
non-destructive reading in the image sensing operation.

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